

Set Items Description

? s bone(w)morphogenesis(w)protein

<-----User Break----->
u!

? s bone(w)morphogenesis(w)protein(w)2

821087 BONE
50463 MORPHOGENESIS
2739130 PROTEIN
6318619 2
S1 0 BONE(W)MORPHOGENESIS(W)PROTEIN(W)2
? s bmp(w)2

Processing
4379 BMP
6318619 2
S2 1287 BMP(W)2
? s bone(w)morphogen?(w)protein(w)2

Processing
821087 BONE
66427 MORPHOGEN?
2739130 PROTEIN
6318619 2
S3 1433 BONE(W)MORPHOGEN?(W)PROTEIN(W)2
? s dna or plasmid or vector

1538553 DNA
184904 PLASMID
194081 VECTOR
S4 1710050 DNA OR PLASMID OR VECTOR
? s s2 or s4

1287 S2
1710050 S4
S5 1711078 S2 OR S4
? s s2 or s3

1287 S2
1433 S3
S6 1997 S2 OR S3
? s s4 and s6

1710050 S4
1997 S6
S7 374 S4 AND S6
? s treat? or therap?

Processing
Processing
4136386 TREAT?
4453655 THERAP?
S8 6841451 TREAT? OR THERAP?
? s s7 and s8

374 S7
6841451 S8
S9 127 S7 AND S8
? rd

...examined 50 records (50)
...examined 50 records (100)
...completed examining records
S10 83 RD (unique items)
? s s10 and py<=1997

Processing
Processing
83 S10
28071296 PY<=1997
S11 32 S10 AND PY<=1997
? t s11/3,ab/1-32

11/3,AB/1 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)
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11262784 BIOSIS NO.: 199800044116
Inhibition of rat vascular smooth muscle proliferation in vitro and in vivo
by %%%bone%% %%%morphogenetic%%
%%protein%%-%%%2%%
AUTHOR: Nakaoka Takashi(a); Gonda Koichi; Ogita Teruhiko;
Otawara-Hamamoto
Yoko; Okabe Fujiko; Harii Kiyonori; Miyazono Kohei; Takuwa Yoh; Fujita
Toshiro
AUTHOR ADDRESS: (a)Dep. Intern. Med., Sch. Med., Univ. Tokyo,
3-28-6
Mejirodai, Bunkyo-ku, Tokyo 112**Japan
JOURNAL: Journal of Clinical Investigation 100 (11):p2824-2832 Dec. 1,
1997
ISSN: 0021-9738
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Vascular proliferative disorders are characterized by the
proliferation of vascular smooth muscle cells (SMCs) and excessive
extracellular matrix synthesis. We found that %%%bone%%
%%morphogenetic%% %%%protein%%-%%%2%%
(%%BMP%%-%%%2%%) inhibited
serum-stimulated increases in %%%DNA%% synthesis and cell number
of
cultured rat arterial SMCs in a fashion quite different from that in the
case of transforming growth factor-beta1 (TGF-beta1). In addition,
TGF-beta1 stimulated collagen synthesis in SMCs, whereas
%%BMP%%-
%%2%% did not. In an in vivo rat carotid artery balloon injury model,
the adenovirus-mediated transfer of the %%%BMP%%-%%%2%%
gene inhibited
injury-induced intimal hyperplasia. These results indicate that
%%BMP%%
-%%2%% has the ability to inhibit SMC proliferation without
stimulating
extracellular matrix synthesis, and suggest the possibility of
%%therapeutic%% application of %%%BMP%%-%%%2%% for
the prevention of
vascular proliferative disorders.

11/3,AB/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

11178660 BIOSIS NO.: 199799799805
Cloning of mouse diastrophic dysplasia sulfate transporter gene induced
during osteoblast differentiation by %%%bone%%
%%morphogenetic%%
%%protein%%-%%%2%%
AUTHOR: Kobayashi Tatsuya(a); Sugimoto Toshitsugu; Saijoh Kiyofumi;
Fukase
Masaaki; Chihara Kazuo
AUTHOR ADDRESS: (a)Third Div., Dep. Med., Kobe Univ., Sch. Med.,
7-5-1
Kusunokicho Chuo-ku, Kobe 650**Japan
JOURNAL: Gene (Amsterdam) 198 (1-2):p341-349 1997
ISSN: 0378-1119
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Although intensive studies have been directed at understanding
osteoblastic differentiation, the molecular mechanisms are still unclear.
In this study, we describe a cDNA that encodes a sulfate transporter that
was cloned as a gene induced in osteoblast precursor cells in association
with osteoblastic differentiation. Based on the fact that %%%bone%%
%%morphogenetic%% %%%protein%%-%%%2%%
(%%BMP%%-%%%2%%) induces
osteoblastic phenotypes in immature mouse fibroblastic C3H10T1/2 cells,
we performed a subtraction hybridization between
%%BMP%%-%%%2%%
%%treated%% and untreated cells, and have isolated one clone
(designated as st-ob for sulfate transporter in osteoblast) induced by
%%BMP%%-%%%2%% that is constantly expressed in osteoblastic

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Search Results - Record(s) 1 through 33 of 33 returned.

1. Document ID: US 6027919 A
Entry 1 of 33

File: USPT

Feb 22, 2000

US-PAT-NO: 6027919
DOCUMENT-IDENTIFIER: US 6027919 A

TITLE: BMP-12 and BMP-13 proteins and DNA encoding them

DATE-ISSUED: February 22, 2000

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
Celeste; Anthony J.	Hudson	MA	N/A
Wozney; John M.	Hudson	MA	N/A
Rosen; Vicki A.	Brookline	MA	N/A
Wolfman; Neil M.	Dover	MA	N/A
Thomsen; Gerald H.	Port Jefferson	NY	N/A
Melton; Douglas A.	Lexington	MA	N/A

US-CL-CURRENT: 435/69.7; 435/252.3, 435/320.1, 435/69.1, 514/2, 530/350, 530/399, 536/23.4, 536/23.5

ABSTRACT:

The present invention relates to a novel family of purified proteins, and compositions containing such proteins, which compositions are useful for the induction of tendon/ligament-like tissue formation, wound healing and ligament and other tissue repair. The present invention further relates to DNA molecules, vectors and host cells useful for production of such proteins.
20 Claims, 0 Drawing figures
Exemplary Claim Number: 1

2. Document ID: US 6027917 A
Entry 2 of 33

File: USPT

Feb 22, 2000

US-PAT-NO: 6027917
DOCUMENT-IDENTIFIER: US 6027917 A

TITLE: Bone morphogenetic protein (BMP)-17 and BMP-18 compositions

DATE-ISSUED: February 22, 2000

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
Celeste; Anthony J.	Hudson	MA	N/A
Murray; Beth L.	Arlington	MA	N/A

US-CL-CURRENT: 435/69.1; 435/252.3, 435/325, 536/23.5, 536/23.51

ABSTRACT:

Purified BMP-17 and BMP-18 proteins and processes for producing them are disclosed. DNA molecules encoding the BMP-17 and BMP-18 proteins are also disclosed. The proteins may be used in the treatment of bone, cartilage, other connective tissue defects and disorders, including tendon, ligament and meniscus, in wound healing and related tissue repair, as well as for treatment of disorders and defects to tissues which include epidermis, nerve, muscle, including cardiac muscle, and other tissues and wounds, and organs such as liver, lung, epithelium, brain, spleen, cardiac, pancreas and kidney tissue. The proteins may also be useful for the induction of growth and/or differentiation of undifferentiated embryonic and stem cells.
17 Claims, 0 Drawing figures
Exemplary Claim Number: 1

3. Document ID: US 5986056 A
Entry 3 of 33

File: USPT

Nov 16, 1999

US-PAT-NO: 5986056
DOCUMENT-IDENTIFIER: US 5986056 A

TITLE: Chordin compositions

DATE-ISSUED: November 16, 1999

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
LaVallie; Edward R.	Tewksbury	MA	01876
Racie; Lisa A.	Acton	MA	01720

DeRobertis; Edward M.
Pacific Palisades
CA 90272
N/A

US-CL-CURRENT: 530/350; 435/69.1

ABSTRACT:

Purified chordin proteins and processes for producing them are disclosed. DNA molecules encoding the chordin proteins are also disclosed. The proteins may be used in the treatment of bone, cartilage, other connective tissue defects and disorders, including tendon, ligament and meniscus, in wound healing and related tissue repair, as well for treatment of disorders and defects to tissue which include epidermis, nerve, muscle, including cardiac muscle, and other tissues and wounds, and organs such as liver, brain, lung, cardiac, pancreas and kidney tissue. The proteins may also be useful for the induction inhibition of growth and/or differentiation of undifferentiated embryonic and stem cells. The proteins may be complexed with other proteins, particularly members of the transforming growth factor-beta superfamily of proteins.
5 Claims, 0 Drawing figures
Exemplary Claim Number: 1

4. Document ID: US 5968752 A
Entry 4 of 33
File: USPT
Oct 19, 1999

US-PAT-NO: 5968752
DOCUMENT-IDENTIFIER: US 5968752 A

TITLE: Method for identifying an OP-1 analog which binds an ALK-1 receptor

DATE-ISSUED: October 19, 1999

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Ichijo; Hidenori	Tokyo	N/A	N/A	JPX
Nishitoh; Hideki	Kanagawa-ken	N/A	N/A	JPX
Sampath; Kuber T.	Medway	MA	N/A	N/A

US-CL-CURRENT: 435/7.2; 435/7.1, 530/350

ABSTRACT:

Disclosed are (1) nucleic acid sequences, amino acid sequences, homologies, structural features, and various other data characterizing morphogen cell surface receptors,

particularly OP-1-binding cell surface receptors, e.g., ALK-1; (2) methods for producing receptor proteins, including fragments thereof, using recombinant DNA technology; (3) methods for identifying novel morphogen receptors and their encoding DNAs; (4) methods for identifying compounds capable of modulating endogenous morphogen receptor levels; and (5) methods and compositions for identifying and producing morphogen analogs useful in the design of morphogen agonists and antagonists for therapeutic, diagnostic, and experimental uses.
3 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

5. Document ID: US 5965403 A
Entry 5 of 33
File: USPT
Oct 12, 1999

US-PAT-NO: 5965403
DOCUMENT-IDENTIFIER: US 5965403 A

TITLE: Nucleic acids encoding bone morphogenic protein-16 (BMP-16)

DATE-ISSUED: October 12, 1999

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Celeste; Anthony J.	Hudson	MA	N/A	N/A
Murray; Beth L.	Arlington	MA	N/A	N/A

US-CL-CURRENT: 435/69.4; 435/252.3, 435/320.1, 435/325, 435/69.1, 435/69.7, 536/23.1, 536/23.5, 536/23.51, 536/24.1

ABSTRACT:

Purified BMP-16 proteins and processes for producing them are disclosed. DNA molecules encoding the BMP-16 proteins are also disclosed. The proteins may be used in the treatment of bone, cartilage, other connective tissue defects and disorders, including tendon, ligament and meniscus, in wound healing and related tissue repair, as well as for treatment of disorders and defects to tissues which include epidermis, nerve, muscle, including cardiac muscle, and other tissues and wounds, and organs such as liver, lung, cardiac, pancreas and kidney tissue. The proteins may also be useful for the induction of growth and/or differentiation of undifferentiated embryonic and stem cells.
14 Claims, 0 Drawing figures
Exemplary Claim Number: 1

6. Document ID: US 5948428 A
Entry 6 of 33

File: USPT

Sep 7, 1999

US-PAT-NO: 5948428

DOCUMENT-IDENTIFIER: US 5948428 A

TITLE: Compositions and therapeutic methods using morphogenic proteins and stimulatory factors

DATE-ISSUED: September 7, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Lee; John C.

San Antonio

TX

N/A

N/A

Yeh; Lee-Chuan C.

San Antonio

TX

N/A

N/A

US-CL-CURRENT: 424/426; 523/114, 523/115, 530/353, 623/16

ABSTRACT:

The present invention provides pharmaceutical compositions comprising a morphogenic protein stimulatory factor (MPSF) for improving the tissue inductive activity of morphogenic proteins, particularly those belonging to the BMP protein family. Methods for improving the tissue inductive activity of a morphogenic protein in a mammal using those compositions are provided.

This invention also provides implantable morphogenic devices comprising a morphogenic protein and a MPSF disposed within a carrier, that are capable of inducing tissue formation in allogeneic and xenogeneic implants. Methods for inducing local tissue formation from a progenitor cell in a mammal using those devices are also provided. A method for accelerating allograft repair in a mammal using morphogenic devices is provided. This invention also provides a prosthetic device comprising a prosthesis coated with a morphogenic protein and a MPSF, and a method for promoting in vivo integration of an implantable prosthetic device to enhance the bond strength between the prosthesis and the existing target tissue at the joining site. Methods of treating tissue degenerative conditions in a mammal using the pharmaceutical compositions are also provided.

78 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 16

7. Document ID: US 5939388 A

Entry 7 of 33

File: USPT

Aug 17, 1999

US-PAT-NO: 5939388

DOCUMENT-IDENTIFIER: US 5939388 A

TITLE: Methods of administering BMP-5 compositions

DATE-ISSUED: August 17, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Rosen; Vicki A.

Chestnut Hill

MA

02167

N/A

Wozney; John M.

Hudson

MA

01749

N/A

Wang; Elizabeth A.

Carlisle

MA

01741

N/A

US-CL-CURRENT: 514/12; 424/85.1, 514/2

ABSTRACT:

Purified BMP-5 proteins and processes for producing them are disclosed. The proteins may be used in the treatment of bone and/or cartilage defects and in wound healing and related tissue repair.

2 Claims, 0 Drawing figures

Exemplary Claim Number: 1

8. Document ID: US 5935852 A

Entry 8 of 33

File: USPT

Aug 10, 1999

US-PAT-NO: 5935852

DOCUMENT-IDENTIFIER: US 5935852 A

TITLE: DNA molecules encoding mammalian cerberus-like proteins

DATE-ISSUED: August 10, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Follettie; Maximillian

Belmont

MA

N/A

N/A

DeRobertis; Edward M.

Pacific Palisades

CA

N/A

N/A

US-CL-CURRENT: 435/325; 435/252.3, 435/252.33, 435/254.11, 435/320.1, 435/357, 435/358, 435/366, 536/23.1, 536/23.5, 536/24.31

ABSTRACT:

DNA molecules are disclosed which encode mammalian Cerberus-Like Proteins.

16 Claims, 0 Drawing figures

Exemplary Claim Number: 1

9. Document ID: US 5932216 A
Entry 9 of 33

File: USPT

Aug 3, 1999

US-PAT-NO: 5932216
DOCUMENT-IDENTIFIER: US 5932216 A

TITLE: Antibodies to bone morphogenetic protein-10 (BMP-10)

DATE-ISSUED: August 3, 1999

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Celeste; Anthony J.	Hudson	MA	01749	N/A
Wozney; John M.	Hudson	MA	01749	N/A

US-CL-CURRENT: 424/158.1; 424/139.1

ABSTRACT:

Purified Bone Morphogenetic Protein-10(BMP-10) proteins and processes for producing them are disclosed. DNA molecules encoding the BMP-10 proteins are also disclosed. The proteins may be used in the treatment of bone and cartilage defects and in wound healing and related tissue repair.
2 Claims, 0 Drawing figures
Exemplary Claim Number: 1

10. Document ID: US 5928940 A
Entry 10 of 33

File: USPT

Jul 27, 1999

US-PAT-NO: 5928940
DOCUMENT-IDENTIFIER: US 5928940 A

TITLE: Morphogen-responsive signal transducer and methods of use thereof

DATE-ISSUED: July 27, 1999

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Sampath; Kuber T.	Holliston	MA	N/A	N/A
Takeda; Kohsuke	Ichikawa	N/A	N/A	N/A

Ichijo; Hidenori

Tokyo

N/A

N/A

JPX

JPX

US-CL-CURRENT: 435/325; 435/320.1, 435/6, 435/7.1, 536/23.5, 536/24.31

ABSTRACT:

A novel gene, DD-10, and its encoded polypeptide chain, DD-10, expressed during early onset of morphogen-induced mammalian tissue morphogenesis, now has been discovered. Accordingly, the invention identifies a new gene which is a novel biological marker of cell differentiation and tissue morphogenesis, particularly of chondroblast or osteoblast cell differentiation and bone tissue morphogenesis. Disclosed are: (a) methods and compositions for screening for and producing morphogen analogs; (b) novel morphogen analogs; (c) downstream inducers of morphogenesis; (d) a novel marker for evaluating morphogen or morphogen analog dosing; and (e) therapeutic methods and compositions using these analogs and/or downstream inducers.
29 Claims, 13 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 13

11. Document ID: US 5916870 A
Entry 11 of 33

File: USPT

Jun 29, 1999

US-PAT-NO: 5916870
DOCUMENT-IDENTIFIER: US 5916870 A

TITLE: Compositions and therapeutic methods using morphogenic proteins and stimulatory factors

DATE-ISSUED: June 29, 1999

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Lee; John C.	San Antonio	TX	N/A	N/A
Yeh; Lee-Chuan C.	San Antonio	TX	N/A	N/A

US-CL-CURRENT: 514/2; 514/21, 623/11, 623/12, 623/16

ABSTRACT:

The present invention provides pharmaceutical compositions comprising a morphogenic protein stimulatory factor (MPSF) for improving the tissue inductive activity of morphogenic proteins, particularly those belonging to the BMP protein family. Methods for improving the tissue inductive activity of a morphogenic protein in a mammal using those compositions are provided.

This invention also provides implantable morphogenic devices comprising a morphogenic protein and a MPSF disposed within a carrier, that are capable of inducing tissue formation in allogeneic and xenogeneic implants. Methods for inducing local tissue formation from a progenitor cell in a mammal using those devices are also provided. A method for accelerating allograft repair in a mammal using morphogenic devices is provided. This invention also provides a prosthetic device comprising a prosthesis coated with a morphogenic protein and a MPSF, and a method for promoting in vivo integration of an implantable prosthetic device to enhance the bond strength between the prosthesis and the existing target tissue at the joining site. Methods of treating tissue degenerative conditions in a mammal using the pharmaceutical compositions are also provided.
42 Claims, 12 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 12

12. Document ID: US 5902785 A
Entry 12 of 33

File: USPT

May 11, 1999

US-PAT-NO: 5902785
DOCUMENT-IDENTIFIER: US 5902785 A

TITLE: Cartilage induction by bone morphogenetic proteins

DATE-ISSUED: May 11, 1999

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Hattersley; Gary	Cambridge	MA	N/A	N/A
Wolfman; Neil M.	Dover	MA	N/A	N/A
Morris; Elisabeth A.	Southboro	MA	N/A	N/A
Rosen; Vicki A.	Chestnut Hill	MA	N/A	N/A

US-CL-CURRENT: 514/2; 514/12, 514/8

ABSTRACT:

Compositions of proteins with cartilaginous tissue inducing and maintenance activity are disclosed. The compositions are useful in the treatment of osteoarthritis, cartilage defects and in related tissue repair.
6 Claims, 0 Drawing figures
Exemplary Claim Number: 1

13. Document ID: US 5854207 A
Entry 13 of 33

File: USPT

Dec 29, 1998

US-PAT-NO: 5854207
DOCUMENT-IDENTIFIER: US 5854207 A

TITLE: Compositions and therapeutic methods using morphogenic proteins and stimulatory factors

DATE-ISSUED: December 29, 1998

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Lee; John C.	San Antonio	TX	N/A	N/A
Yeh; Lee-Chuan C.	San Antonio	TX	N/A	N/A

US-CL-CURRENT: 514/2; 514/21

ABSTRACT:

The present invention provides pharmaceutical compositions comprising a morphogenic protein stimulatory factor (MPSF) for improving the tissue inductive activity of morphogenic proteins, particularly those belonging to the BMP protein family. Methods for improving the tissue inductive activity of a morphogenic protein in a mammal using those compositions are provided.

This invention also provides implantable morphogenic devices comprising a morphogenic protein and a MPSF disposed within a carrier, that are capable of inducing tissue formation in allogeneic and xenogeneic implants. Methods for inducing local tissue formation from a progenitor cell in a mammal using those devices are also provided. A method for accelerating allograft repair in a mammal using morphogenic devices is provided. This invention also provides a prosthetic device comprising a prosthesis coated with a morphogenic protein and a MPSF, and a method for promoting in vivo integration of an implantable prosthetic device to enhance the bond strength between the prosthesis and the existing target tissue at the joining site. Methods of treating tissue degenerative conditions in a mammal using the pharmaceutical compositions are also provided.
28 Claims, 12 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 12

14. Document ID: US 5846770 A
Entry 14 of 33

File: USPT

Dec 8, 1998

US-PAT-NO: 5846770
DOCUMENT-IDENTIFIER: US 5846770 A

TITLE: DNA molecules encoding human chordin

DATE-ISSUED: December 8, 1998

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
LaVallie, Edward R.			
Tewksbury	MA	N/A	N/A
Racie, Lisa A.			
Acton	MA	N/A	N/A
DeRobertis, Edward M.			
Pacific Palisades	CA	N/A	N/A

US-CL-CURRENT: 435/69.1; 435/252.3, 435/320.1, 435/325, 435/69.7, 536/23.4, 536/23.5

ABSTRACT:

Purified chordin proteins and processes for producing them are disclosed. DNA molecules encoding the chordin proteins are also disclosed. The proteins may be used in the treatment of bone, cartilage, other connective tissue defects and disorders, including tendon, ligament and meniscus, in wound healing and related tissue repair, as well as for treatment of disorders and defects to tissues which include epidermis, nerve, muscle, including cardiac muscle, and other tissues and wounds, and organs such as liver, brain, lung, cardiac, pancreas and kidney tissue. The proteins may also be useful for the induction inhibition of growth and/or differentiation of undifferentiated embryonic and stem cells. The proteins may be complexed with other proteins, particularly members of the transforming growth factor-beta superfamily of proteins. 12 Claims, 0 Drawing figures Exemplary Claim Number: 1

15. Document ID: US 5846931 A
Entry 15 of 33

File: USPT

Dec 8, 1998

US-PAT-NO: 5846931
DOCUMENT-IDENTIFIER: US 5846931 A

TITLE: Compositions comprising bone morphogenic proteins and truncated parathyroid hormone related peptide and methods of inducing cartilage by administration of same

DATE-ISSUED: December 8, 1998

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
Hattersley, Gary			
Cambridge	MA	02142	

Rosen, Vicki A.			N/A
Chestnut Hill	MA	02167	N/A

US-CL-CURRENT: 514/2; 424/85.1, 514/12, 514/8, 530/300, 530/324, 530/350, 530/351, 530/397, 530/399

ABSTRACT:

Compositions of proteins with chondrocyte and cartilaginous tissue inducing activity, as well as method of using those compositions, are disclosed. The compositions comprise one or more proteins of the transforming growth factor-beta. (TGF-beta.) superfamily of proteins, particularly bone morphogenetic proteins (BMPs), in combination with parathyroid hormone related polypeptide (PTHrP) or an equivalent PTH-like polypeptide. The compositions and methods are useful in the treatment of osteoarthritis, cartilage defects and in related tissue repair. 7 Claims, 0 Drawing figures Exemplary Claim Number: 1

16. Document ID: US 5830761 A
Entry 16 of 33

File: USPT

Nov 3, 1998

US-PAT-NO: 5830761
DOCUMENT-IDENTIFIER: US 5830761 A

TITLE: Medium and methods for culturing mammalian cho cells

DATE-ISSUED: November 3, 1998

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
Drapeau, Denis			
Salem	NH	N/A	N/A
Adamson, S. Robert			
Chelmsford	MA	N/A	N/A
Luan, Yen-Tung			
Chelmsford	MA	N/A	N/A
Thoday, Paul			
Sterling	MA	N/A	N/A

US-CL-CURRENT: 435/404; 435/358

ABSTRACT:

Cell culture media are provided containing high L-cystine concentration and low L-glutamic acid concentration. The media are useful for recombinant production of proteins

using mammalian cell cultures.
16 Claims, 0 Drawing figures
Exemplary Claim Number: 1

17. Document ID: US 5804416 A
Entry 17 of 33

File: USPT

Sep 8, 1998

US-PAT-NO: 5804416
DOCUMENT-IDENTIFIER: US 5804416 A

TITLE: Mutants of bone morphogenetic proteins

DATE-ISSUED: September 8, 1998

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Wolfman; Neil M.	Dover	MA	N/A	N/A
McCoy; John	Reading	MA	N/A	N/A

US-CL-CURRENT: 435/69.1; 530/333, 530/350, 530/399

ABSTRACT:

DNA molecules encoding mutant forms of bone morphogenetic proteins (BMP) are disclosed. The mutant forms of BMP can be produced bacterially and refolded to produce biologically active homodimers or heterodimers of BMP. A method of making such mutant BMPs is also disclosed.
2 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

18. Document ID: US 5756457 A
Entry 18 of 33

File: USPT

May 26, 1998

US-PAT-NO: 5756457
DOCUMENT-IDENTIFIER: US 5756457 A

TITLE: Neural regeneration using human bone morphogenetic proteins

DATE-ISSUED: May 26, 1998

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Wang; Elizabeth A.	Carlisle	MA	N/A	N/A

D'Alessandro; Josephine S.

	CITY	STATE	ZIP CODE	COUNTRY
D'Alessandro; Josephine S.	Marblehead	MA	N/A	N/A
Toriumi; Dean M.	Riverside	IL	N/A	N/A

US-CL-CURRENT: 514/12; 424/422, 424/423, 606/152

ABSTRACT:

Methods and devices are disclosed for inducing growth of neural cells, and repairing neural defects in a mammal. The method comprises administering to said mammal at the site of neural defect, damage or depletion, an effective amount of a bone morphogenetic protein, either in admixture with a pharmaceutically acceptable vehicle, or adsorbed to a suitable matrix. The device comprises bone morphogenetic protein, optionally in combination with other factors, adsorbed on a suitable matrix and contained within an artificial nerve replacement vessel.
17 Claims, 0 Drawing figures
Exemplary Claim Number: 1

19. Document ID: US 5756308 A
Entry 19 of 33

File: USPT

May 26, 1998

US-PAT-NO: 5756308
DOCUMENT-IDENTIFIER: US 5756308 A

TITLE: Refolding variant of bone morphogenetic protein-8

DATE-ISSUED: May 26, 1998

INVENTOR-INFORMATION:
NAME

	CITY	STATE	ZIP CODE	COUNTRY
Wolfman; Neil M.	Dover	MA	N/A	N/A
McCoy; John	Reading	MA	N/A	N/A

US-CL-CURRENT: 435/69.1; 530/333, 530/399, 536/23.5

ABSTRACT:

DNA molecules encoding mutant forms of bone morphogenetic proteins (BMP) are disclosed. The mutant forms of BMP can be produced bacterially and refolded to produce biologically active homodimers or heterodimers of BMP. A method of making such mutant BMPs is also disclosed.
4 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

20. Document ID: US 5728679 A
Entry 20 of 33

File: USPT

Mar 17, 1998

US-PAT-NO: 5728679
DOCUMENT-IDENTIFIER: US 5728679 A

TITLE: BMP-15 compositions

DATE-ISSUED: March 17, 1998

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
Celeste; Anthony J.	Hudson	MA	N/A
Dube; Jennifer L.	Arlington	MA	N/A
Lyons; Karen M.	Sherman Oaks	CA	N/A
Hogan; Brigid	Brentwood	TN	N/A

US-CL-CURRENT: 514/12; 424/484, 530/350, 530/387.1, 530/395, 530/399

ABSTRACT:

Purified BMP-15-related proteins and processes for producing them are disclosed. DNA molecules encoding the BMP-15-related proteins are also disclosed. The proteins may be used in the treatment of bone and cartilage and/or other connective tissue defects and in wound healing and related tissue repair.
12 Claims, 0 Drawing figures
Exemplary Claim Number: 1

21. Document ID: US 5703043 A
Entry 21 of 33

File: USPT

Dec 30, 1997

US-PAT-NO: 5703043
DOCUMENT-IDENTIFIER: US 5703043 A

TITLE: Bone morphogenetic protein-10 (BMP-10) compositions

DATE-ISSUED: December 30, 1997

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
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Celeste; Anthony J.

Hudson	MA	N/A	N/A
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Wozney; John M.

Hudson	MA	N/A	N/A
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US-CL-CURRENT: 514/12; 435/69.1, 530/399, 536/23.5, 930/120

ABSTRACT:

Purified Bone Morphogenetic Protein-10 (BMP-10) proteins and processes for producing them are disclosed. DNA molecules encoding the BMP-10 proteins are also disclosed. The proteins may be used in the treatment of bone and cartilage defects and in wound healing and related tissue repair.
9 Claims, 0 Drawing figures
Exemplary Claim Number: 1

22. Document ID: US 5700774 A
Entry 22 of 33

File: USPT

Dec 23, 1997

US-PAT-NO: 5700774
DOCUMENT-IDENTIFIER: US 5700774 A

TITLE: Compositions comprising bone morphogenic proteins and truncated parathyroid hormone related peptide, and methods of inducing cartilage by administration of same

DATE-ISSUED: December 23, 1997

INVENTOR-INFORMATION:
NAME

CITY	STATE	ZIP CODE	COUNTRY
Hattersley; Gary	Cambridge	MA	N/A
Rosen; Vicki A.	Chestnut Hill	MA	N/A

US-CL-CURRENT: 514/2; 514/12, 514/8, 530/350, 530/397, 530/399

ABSTRACT:

Compositions of proteins with chondrocyte and cartilaginous tissue inducing activity, as well as method of using those compositions, are disclosed. The compositions comprise one or more proteins of the transforming growth factor-.beta. (TGF-.beta.) superfamily of proteins, particularly bone morphogenetic proteins (BMPs), in combination with parathyroid hormone related polypeptide (PTHrP) or an equivalent PTH-like polypeptide. The compositions and methods are useful in the treatment of osteoarthritis, cartilage defects and in related tissue repair.
17 Claims, 0 Drawing figures

Exemplary Claim Number: 1

23. Document ID: US 5700911 A
Entry 23 of 33

File: USPT

Dec 23, 1997

US-PAT-NO: 5700911

DOCUMENT-IDENTIFIER: US 5700911 A

TITLE: Bone morphogenetic protein -11 (BMP-11) compositions

DATE-ISSUED: December 23, 1997

INVENTOR-INFORMATION:
NAME

CITY

STATE

ZIP CODE

COUNTRY

Wozney; John M.

Hudson

MA

N/A

N/A

Celeste; Anthony J.

Hudson

MA

N/A

N/A

US-CL-CURRENT: 530/350; 435/69.4, 530/399, 930/120

ABSTRACT:

Purified Bone Morphogenetic Protein-11(BMP-11) proteins and processes for producing them are disclosed. Recombinant DNA molecules encoding the BMP-11 proteins are also disclosed. The

proteins may be useful in regulating follicle stimulating hormone, such as for contraception. In

addition, the proteins may be useful for the induction of bone, cartilage and/or other connective

tissue.

12 Claims, 0 Drawing figures

Exemplary Claim Number: 1

24. Document ID: US 5658882 A
Entry 24 of 33

File: USPT

Aug 19, 1997

US-PAT-NO: 5658882

DOCUMENT-IDENTIFIER: US 5658882 A

TITLE: Methods of inducing formation of tendon and/or ligament tissue comprising administering BMP-12, BMP-13, and/or MP-52

DATE-ISSUED: August 19, 1997

INVENTOR-INFORMATION:
NAME

CITY

STATE

ZIP CODE

COUNTRY

Celeste; Anthony J.

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MA

N/A

Wozney; John M.

Hudson

MA

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Rosen; Vicki A.

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Wolfman; Neil M.

Dover

MA

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Thomsen; Gerald H.

Port Jefferson

NY

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Melton; Douglas A.

Lexington

MA

N/A

N/A

N/A

US-CL-CURRENT: 514/12; 435/252.3, 435/320.1, 435/375, 435/69.1, 514/2, 514/8, 530/350, 530/399, 536/23.4, 536/23.5

ABSTRACT:

The present invention relates to methods for the induction of tendon/ligament-like tissue formation, wound healing and ligament and other tissue repair, using a composition comprising BMP-12, BMP-13 or MP-52, or combinations of the above.

20 Claims, 1 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

25. Document ID: US 5645084 A
Entry 25 of 33

File: USPT

Jul 8, 1997

US-PAT-NO: 5645084

DOCUMENT-IDENTIFIER: US 5645084 A

TITLE: Method for spinal fusion without decortication

DATE-ISSUED: July 8, 1997

INVENTOR-INFORMATION:
NAME

CITY

STATE

ZIP CODE

COUNTRY

McKay; William F.

Memphis

TN

N/A

N/A

US-CL-CURRENT: 128/898; 435/69.1, 606/76

ABSTRACT:

Surgical procedures for stabilizing a spine include exposing a portion of each of adjacent vertebrae requiring fusion and placing an osteoinductive material within an

area between the portions of the adjacent vertebrae in contact with the cortical bone of the portions. In another aspect, surgical procedures for stabilizing a spine are provided which include exposing a portion of each of adjacent vertebrae requiring fusion, adding an osteoinductive cytokine to a carrier material and placing the carrier material between the portions of the adjacent vertebrae in contact with the cortical bone of the portions.
28 Claims, 0 Drawing figures
Exemplary Claim Number: 1

26. Document ID: US 5639638 A
Entry 26 of 33

File: USPT

Jun 17, 1997

US-PAT-NO: 5639638

DOCUMENT-IDENTIFIER: US 5639638 A

TITLE: DNA molecules encoding bone morphogenetic protein-11

DATE-ISSUED: June 17, 1997

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Wozney; John M.

Hudson

MA

N/A

N/A

Celeste; Anthony J.

Hudson

MA

N/A

N/A

US-CL-CURRENT: 435/69.4; 435/252.3, 435/320.1, 435/325, 435/358, 435/360, 435/364, 530/399, 536/23.4, 536/23.51, 930/120

ABSTRACT:

Purified Bone Morphogenetic Protein-11 proteins and processes for producing them are disclosed. Recombinant DNA molecules encoding the BMP-11 proteins are also disclosed. The proteins may be useful in regulating follicle stimulating hormone, such as for contraception, and for the induction of bone, cartilage and/or other connective tissue.
17 Claims, 0 Drawing figures
Exemplary Claim Number: 14

27. Document ID: US 5637480 A
Entry 27 of 33

File: USPT

Jun 10, 1997

US-PAT-NO: 5637480

DOCUMENT-IDENTIFIER: US 5637480 A

TITLE: DNA molecules encoding bone morphogenetic protein-10

DATE-ISSUED: June 10, 1997

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Celeste; Anthony J.

Hudson

MA

N/A

N/A

Wozney; John M.

Hudson

MA

N/A

N/A

US-CL-CURRENT: 435/69.4; 435/252.3, 435/320.1, 435/325, 435/360, 435/364, 435/365.1, 530/399, 536/23.4, 536/23.51, 930/10

ABSTRACT:

Purified Bone Morphogenetic Protein-10 proteins and processes for producing them are disclosed. Recombinant DNA molecules encoding the BMP-10 proteins are also disclosed. The proteins may be used in the treatment of bone and cartilage defects and in wound healing and related tissue repair.
17 Claims, 0 Drawing figures
Exemplary Claim Number: 14

28. Document ID: US 5635372 A
Entry 28 of 33

File: USPT

Jun 3, 1997

US-PAT-NO: 5635372

DOCUMENT-IDENTIFIER: US 5635372 A

TITLE: BMP-15 compositions

DATE-ISSUED: June 3, 1997

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Celeste; Anthony J.

Hudson

MA

N/A

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Dube; Jennifer L.

Arlington

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N/A

N/A

Lyons; Karen M.

Sherman Oaks

CA

N/A

N/A

Hogan; Brigid

Brentwood

TN

N/A

N/A

US-CL-CURRENT: 435/69.1; 435/252.3, 435/320.1, 435/325, 435/358, 435/360, 536/23.4, 536/23.5

ABSTRACT:

Purified BMP-15-related proteins and processes for producing them are disclosed. DNA molecules encoding the BMP-15-related proteins are also disclosed. The proteins may be used in the treatment of bone and cartilage and/or other connective tissue defects and in wound healing and related tissue repair.
17 Claims, 0 Drawing figures
Exemplary Claim Number: 1

29. Document ID: US 5516654 A

Entry 29 of 33

File: USPT

May 14, 1996

US-PAT-NO: 5516654

DOCUMENT-IDENTIFIER: US 5516654 A

TITLE: Production of recombinant bone-inducing proteins

DATE-ISSUED: May 14, 1996

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Israel; David I.

Concord

MA

N/A

N/A

US-CL-CURRENT: 435/69.1; 435/70.3

ABSTRACT:

A process for increasing the yield of recombinant bone-inducing proteins of the BMP-2 family is provided, wherein dextran sulfate is added to the culture medium in which cells expressing the proteins are grown.
1 Claims, 0 Drawing figures
Exemplary Claim Number: 1

30. Document ID: US 5385887 A

Entry 30 of 33

File: USPT

Jan 31, 1995

US-PAT-NO: 5385887

DOCUMENT-IDENTIFIER: US 5385887 A

TITLE: Formulations for delivery of osteogenic proteins

DATE-ISSUED: January 31, 1995

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Yim; Calvin W. K.

N. andover

MA

N/A

N/A

Huberty; Michael C.

Andover

MA

N/A

N/A

Northey, Jr.; Richard P.

Ipswich

MA

N/A

N/A

Schrier; Jay A.

Andover

MA

N/A

N/A

US-CL-CURRENT: 514/12; 106/645, 424/423, 424/426, 514/21, 514/8, 530/350, 530/397, 530/399, 530/840

ABSTRACT:

A composition is disclosed comprising a pharmaceutically acceptable admixture of an osteogenic protein; a porous particulate polymer matrix; an osteogenic protein-sequestering amount of blood clot; and a calcium sulfate hemihydrate-containing substance. Also disclosed are formulations of bone morphogenetic proteins with improved solubility and/or stability characteristics.
7 Claims, 0 Drawing figures
Exemplary Claim Number: 1

31. Document ID: US 4455256 A

Entry 31 of 33

File: USPT

Jun 19, 1984

US-PAT-NO: 4455256

DOCUMENT-IDENTIFIER: US 4455256 A

TITLE: Bone morphogenetic protein

DATE-ISSUED: June 19, 1984

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Urist; Marshall R.

Pacific Palisades

CA

N/A

N/A

US-CL-CURRENT: 530/350; 424/549, 530/355, 530/417, 530/422, 530/840, 623/11, 623/16

ABSTRACT:

Bone morphogenetic protein (BMP) made by the process comprising the steps of demineralizing bone tissue; treating the demineralized bone tissue under aqueous conditions with a water soluble neutral salt and a solubilizing agent for the BMP, the agent being selected from the group consisting of urea and guanidine, and thereby transforming the bone collagen to gelatin and extracting BMP into the solution of solubilizing agent; and separating the solubilizing agent and neutral salt from the solution, thereby precipitating BMP in the aqueous

medium, and the BMP has
a molecular weight in the range of 1,000-100,000.
20 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

32. Document ID: US 5700911 A
Entry 32 of 33

File: DWPI

Dec 23, 1997

DERWENT-ACC-NO: 1998-062433
DERWENT-WEEK: 199806
COPYRIGHT 2000 DERWENT INFORMATION LTD
TITLE: Human and bovine bone morphogenetic protein 11 - useful for
inducing bone and cartilage
formation
INVENTOR: CELESTE, A J; WOZNEY, J M

PRIORITY-DATA:
1994US-0247907

May 20, 1994

1993US-0061464

May 12, 1993

1995US-0452772

May 30, 1995

PATENT-FAMILY:
PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

US 5700911 A

December 23, 1997

N/A

019

C07K014/51

INT-CL (IPC): C07K 14/51

ABSTRACTED-PUB-NO: US 5700911A
BASIC-ABSTRACT:

The following are claimed: (1) a purified BMP-11 polypeptide [BMP =
bone morphogenetic protein]
consisting of amino acids 1-109 of a 126 residue sequence [bovine
BMP-11]; (2) a purified BMP-11
polypeptide consisting of amino acids 1-109 of 362 residue sequence
[human BMP-11]; (3) a
purified BMP-11 polypeptide stated to be as in (2) where the polypeptide is
a dimer in which each
subunit consists of at least amino acids 1-109 of bovine BMP-11; (4) a
purified BMP-11
polypeptide stated to be as in (2) where the polypeptide is a dimer in which
one subunit consists
of at least amino acids 1-109 of bovine BMP-11 and the other subunit
comprises an amino acid
sequence of BMP-1, BMP-2, BMP-3, BMP-4, BMP-5, BMP-6, BMP-7,
BMP-8, BMP-9 or BMP-10. All
sequences are given in the specification.

USE - The human BMP-11 polypeptide [mature human BMP-11] or its
dimers with other inhibin- beta ,
inhibin- alpha or bone morphogenetic proteins is useful for inducing bone
and/or cartilage
formation, e.g. for bone, ligament or cartilage repair, wound healing or
treatment of periodontal
disease.

33. Document ID: US 5639638 A
Entry 33 of 33

File: DWPI

Jun 17, 1997

DERWENT-ACC-NO: 1997-332045
DERWENT-WEEK: 199730
COPYRIGHT 2000 DERWENT INFORMATION LTD
TITLE: DNA encoding bone morphogenetic protein 11 polypeptide(s) -
useful for regulating
follicle-stimulating hormone
INVENTOR: CELESTE, A J; WOZNEY, J M

PRIORITY-DATA:
1994US-0247907

May 20, 1994

1993US-0061464

May 12, 1993

PATENT-FAMILY:
PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

US 5639638 A

June 17, 1997

E

020

C07K014/51

INT-CL (IPC): C07K 14/51; C12N 15/16; C12N 15/85

ABSTRACTED-PUB-NO: US 5639638A
BASIC-ABSTRACT:

Isolated DNA molecules encoding two bone marrow morphogenic protein
-11 (BMP-11) polypeptides are
new, where one comprises nucleotides 375-704, or 390-704 of a defined
789 bp sequence given in
the specification, and the other comprises nucleotides 760-1086, or
775-1086 of a defined
sequence of 1270 bp given in the specification. Also claimed are: (1) cells
transformed with the
DNA; (2) vectors containing the DNA; (3) cells transformed with the vector
of (2); (4) the
polypeptide s encoded by the DNA, with the 109 amino acid mature protein
sequences from the 126
and 362 amino acid sequences given in the specification; (5) a homodimer
of the human
polypeptide; (6) a heterodimer comprising the human polypeptide and a
subunit of BMP-1, BMP-2,
BMP-3, BMP-4, BMP-5, BMP-6, BMP-7, BMP-8, BMP-9 or BMP-10;
and (7) a chimeric DNA molecule
comprising a DNA sequence encoding a propeptide of a member of the
transforming growth factor-
beta (TGF- beta) superfamily of proteins linked in frame to a BMP-11
coding sequence as above.

USE - The polypeptides may be useful for regulating follicle-stimulating
hormone, e.g. for the
purpose of contraception or for inducing bone, cartilage and/or other
connective tissue
formation. The polypeptides are produced by culturing the cells of (1) or
(3), followed by
recovering and purifying the BMP-11 sequence from the culture medium
(claimed).